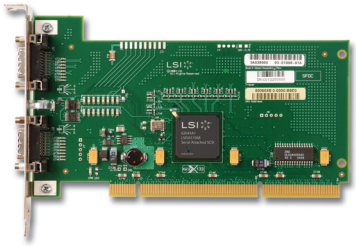
Product Brief

LSISAS3800X

3Gb/s SAS Eight-Port Host Bus Adapter



APPLICATIONS

- High performance workstations
- Mid to high-end servers
- External storage connections

TYPICAL USES

- Large-scale external RBOD enclosures
- Tiered SAS/SATA RAID arrays
- Mission-critical applications running from SAS drives

FEATURES

- 3Gb/s per port
- Two x4 external SFF8470 connectors
- Full-height HBA
- Connects to both SAS and SATA HDDs and tape drives
- Allows more than 122 total end-point devices
- Fusion-MPT™ architecture providing over 140,000 I/Os per second
- Supports all major operating systems

Providing Maximum Throughput for External RAID and Non-RAID Storage Arrays

KEY ADVANTAGES

- Flexible SAS/SATA array architecture optimizes cost
- Eight external high-speed SAS ports for maximum mass-storage connectivity
- 3Gb/s per port delivers 2400 MB/s to external enclosures
- MyStorage™ management software simplifies large-scale tiered storage arrays
- SAS/SATA interconnect proven through LSI's robust serial technology

Industry's First 8-port External SAS Controller

The LSISAS3800X card enables large-scale direct attach storage (DAS) arrays through eight external 3Gb/s ports, driving up to 122 Serial Attached SCSI (SAS) and Serial ATA (SATA) devices. The host bus adapter supports large capacity external server storage RAID and non-RAID enclosures by connecting a 64-bit PCI-X 133MHz bus with two external x4 SFF8470 SAS connectors. The LSISAS3800X demonstrates a significant advantage over parallel SCSI in providing 2400MB/s external data throughput and cost optimization of SAS and SATA drives.

Cost-Optimization of External Storage with SAS

As the first-to-market leader in SAS, LSI is providing more bandwidth to cost-optimized external drive arrays. System integrators can use the LSISAS3800X to build large-scale storage array infrastructures that supports both SAS and SATA devices. By utilizing lower-cost SATA drives for data backup and SAS drives for mission-critical applications, end-users will receive high-capacity, high-performance data storage while enjoying an interrupt-free high-activity environment. The performance advantage and cost savings can be felt immediately when using the LSISAS3800X to develop and tiered storage array.

Unsurpassed Host bus and SAS/SATA Signal Quality

LSI has been the hands-down leader in serial interface technology for over five generations. The LSISAS3800X HBA leverages LSI's expertise in serial communication to provide superior signal integrity over distances greater than 6 meters. Security in data transmission over long distances enables the LSISAS3800X to supply more external storage applications without needing a high-cost optical infrastructure. Additionally, LSI's high-speed serial interconnect expertise ensures an interrupt-free, READ/WRITE intensive experience for end-users.

MyStorage™ – Simple Storage Array Management

Managing several drives in a storage array can be difficult when running a mixture of SAS and SATA. LSI's MyStorage management software makes storage array optimization easy. MyStorage fully automates the task of deploying and maintaining server to storage array connectivity. From the most modest, small-scale DAS replacement to an ambitious data center, MyStorage keeps it simple. Through an intuitive Graphical User Interface (GUI), this powerful utility helps customers manage storage quickly and easily. Using MyStorage, users can inspect and control all LSI adapters with point and click simplicity.

A rich suite of tools enables remote firmware update, drive monitoring, link tuning, load balancing, path monitoring, diagnostics and error reporting. Altogether, MyStorage delivers a complete set of management tools that are simple to use.

Operating System Support

The LSISAS3800X HBA supports all key 32-bit and 64-bit versions of Microsoft Windows, Linux, Solaris, Netware as well as the x86, IA64, SPARC, AMD64 and EM64T system architectures. All OS drivers are backed by extensive testing and validation to ensure optimum system performance. For a list of the most current supported drivers, visit *lsi.com/support*.

LSISAS3800X HOST BUS ADAPTER		
PCI Bus	64-bit, 133MHz PCI-X, Backward Compatible with PCI	
PCI Modes	Bus Master DMA	
PCI Data Burst Transfer Rates	132MB/s (PCI 32-bit bus @ 33MHz) 264MB/s (PCI 64-bit bus @ 33MHz) 528MB/s (PCI 64-bit bus @ 66MHz)	800MB/s (PCI-X 64-bit bus @ 100MHz) 1064MB/s (PCI-X 64-bit bus @ 133MHz)
SAS Bandwidth	Half Duplex Single lane – 300MB/s Wide port (2-lanes) – 600MB/s Wide port (3-lanes) – 900MB/s Wide port (4-lanes) – 1200MB/s Wide port (8-lanes) – 2400MB/s	Full Duplex Single lane – 600MB/s Wide port (2-lanes) – 1200MB/s Wide port (4-lanes) – 2400MB/s
PCI Voltage/Card Type	3.3V Add-in Card	
PCI Form Factor	6.6" x 3.8"	
PCI Power	7.5W	
Bracket	Full Height	
Certification Level	PCI 2.2, PCI-X 1.0a, PCI-X 2.0 model	
I/O Bus	Eight External 3GB/s SAS/SATA Ports	
SAS Processor	LSISAS1068	
Connectors	Internal N/A	External Two SFF8470 SAS Connector
LED Indicators Internal	Activity per PHY (8) Fault per PHY (8)	
Max Number of Physical Devices	122	
Environments	Operating 0°C to 60°C 5 to 90% Non-condensing	Storage -45°C to 105°C 5 to 90% Non-condensing
MTFB	>200,000 Hours	
Compliances	EMC: Class B-US (CFR 47, P15B); Canada (ICES-003); Japan (V-3/02.04); Europe (EN55022/EN55024); Australia/ New Zealand (AS/NZS 3548); Safety: EN60950	
Software – MyStorage	Drive monitoring, HBA management, drive topology	
OS Support	Microsoft® Windows® 2000, Server 2003 32-bit and 64-bit (x86 and AMD64), XP Red Hat® Linux® RHEL 3 Novell® NetWare® 5.1 and 6.5 SuSE® Linux®/SLES Sun SPARC Solaris 2.6 thru 2.10	
Ordering Information	LSISAS3800X Kit – P/N: LSI00056-F LSISAS3800X 5-pack – P/N: LSI00057-F	
Warranty	3 years, advanced replacement option, free advanced technical support at *lsi.com/support*	

FUSION-MPT MESSAGE PASSING TECHNOLOGY

MYStorage management software

Serial Attached SCSI

PCI-X

For more information and sales office locations, please visit the LSI web sites at: lsi.com lsi.com/contacts

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